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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,558	04/02/2004	Horst Hoffmann	H 5341	3798

423 7590 10/20/2005

HENKEL CORPORATION  
THE TRIAD, SUITE 200  
2200 RENAISSANCE BLVD.  
GULPH MILLS, PA 19406

EXAMINER
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BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/817,558

Applicant(s)

HOFFMANN ET AL.

Examiner

Melanie D. Bissett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 4 and 6-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3, 4, 6 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 7-18 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The objection to the abstract and claim objections have been withdrawn based on the applicant's amendments. The rejections based on 35 USC 103 have been maintained.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 7 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. in view of Henkel.

4. From a prior Office action:

Henkel discloses moisture-curable hot melt polyurethane adhesives comprising reaction products of polyisocyanates and hydroxyl-containing low molecular weight polymers derived from ethylenically unsaturated monomers (abstract). Prepolymers are made by reacting the polyisocyanate with polyether polyols, polyester polyols, and/or aromatic polyols (p. 10 lines 5-7), where polyether polyols have molecular weights of 200-10,000 and preferably 400-6,000 (p. 10 lines 8-25). Mixtures of crystalline and amorphous polyesters are used (p. 11 lines 27-29). Example 2 shows an adhesive comprising the reaction product of two polypropylene glycols, a hydroxyl group-containing acrylic resin, an MDI mixture, and a poly(hexane adipate) diol crystalline polyester diol. The polypropylene glycols have molecular weights of 1000 and about 2000, where a molecular weight of 1000 is within experimental error of "below 1000." Tackifying resins are used, including those containing active hydrogen groups (p. 14 lines 25-27; p. 15 lines 30-31).

Schneider teaches multilayer thermoformable composite veneer films to be heated and applied to shaped wood parts, wood boards, plasterboard, metal, or metal sheets (abstract; col. 2 lines 31-46). Hot-melt polyurethane adhesives are used to apply the films to the substrates (col. 8 lines 12-22; examples). Several of the layers of the film may contain poly(meth)acrylate materials (col. 4 lines 24-41; col. 5 lines 14-28; col. 5 lines 42-65), demonstrating the application of an acrylate-containing film to a substrate via polyurethane hot-melt adhesive. The exterior layer is pre-treated by corona treatment to aid the adhesion of the bonding layer (col. 7 lines 45-50). However, the reference does not disclose the applicant's specific adhesive composition. Henkel applies as above, teaching moisture-cured hot melt polyurethane adhesives having improved heat resistance, moisture resistance, and solvent resistance when applied to wood substrates (p. 18 lines 3-12). Thus, it would have been prima facie obvious to use the hot-melt adhesives of

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Henkel's invention as the bonding layer in Schneider's articles to provide improved heat resistance, moisture resistance, and solvent resistance.

5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al. in view of Henkel.

6. From a prior Office action:

Henkel discloses moisture-curable hot melt polyurethane adhesives comprising reaction products of polyisocyanates and hydroxyl-containing low molecular weight polymers derived from ethylenically unsaturated monomers (abstract). Prepolymers are made by reacting the polyisocyanate with polyether polyols, polyester polyols, and/or aromatic polyols (p. 10 lines 5-7), where polyether polyols have molecular weights of 200-10,000 and preferably 400-6,000 (p. 10 lines 8-25). Mixtures of crystalline and amorphous polyesters are used (p. 11 lines 27-29). Example 2 shows an adhesive comprising the reaction product of two polypropylene glycols, a hydroxyl group-containing acrylic resin, an MDI mixture, and a poly(hexane adipate) diol crystalline polyester diol. The polypropylene glycols have molecular weights of 1000 and about 2000, where a molecular weight of 1000 is within experimental error of "below 1000." Tackifying resins are used, including those containing active hydrogen groups (p. 14 lines 25-27; p. 15 lines 30-31).

Fields discloses flexible, weatherable decorative sheet materials comprising color coats, clear coats, adhesives, and a thermoformable backing (figures 4-5). Both pigmented and colorless paint films are formed from alloys containing methacrylate polymers (col. 6 line 26-col. 7 line 15; example). Adhesives used to attach the paint films to a thermoformable backing include urethane adhesives (col. 7 lines 46-51), and thermoformable backings include ABS, PVC, and polypropylene (col. 8 lines 25-34). However, the reference does not disclose the applicant's specific adhesive composition. Henkel applies as above, teaching moisture-cured hot melt polyurethane adhesives having improved heat resistance, moisture resistance, and solvent resistance when applied to thermoplastic substrates (p. 18 lines 3-12; p. 23 lines 5-15). Thus, it would have been prima facie obvious to use the hot-melt adhesives of Henkel's invention as the bonding layer in Schneider's articles to provide improved heat resistance, moisture resistance, and solvent resistance.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. in view of Henkel as applied to claims 7 and 12-15 above, and further in view of Kokrhanek.

8. From a prior Office action:

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Schneider and Henkel apply as above, teaching the application of synthetic veneers to wood parts but failing to teach a pretreatment step for the wood before the veneers are applied. Kokrhanek teaches that primer layers are used on the wood layers to promote adhesion of the bonding layer (col. 7 lines 6-21). It is the examiner's position that it would have been prima facie obvious to use primer layers in the inventions of Schneider and Henkel to promote the adhesion of the bonding layers.

### ***Double Patenting***

9. Claim 19 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Allowable Subject Matter***

10. Claims 1, 3-4, 6, and 20-22 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

12. The closest prior art, Henkel, discloses moisture-curable hot melt polyurethane adhesives comprising reaction products of polyisocyanates and hydroxyl-containing low molecular weight polymers derived from ethylenically unsaturated monomers. Although the reference suggests MDI, polypropylene glycols, crystalline polyesters, low molecular weight polymers, and tackifiers, the reference does not suggest the specific amounts and molecular weights of all of the claimed components. It is the examiner's position

that the specific claimed compositions would provide a novel and unobvious step over the prior art.

### ***Response to Arguments***

13. In response to the applicant's arguments that the "consisting essentially of" language overcomes the prior art, it is noted that the claims would only exclude those components which have been shown to materially affect the basic and novel characteristics of the claimed invention. Since the specification does not suggest that materials should be excluded from the acrylic layer and does not teach the adverse affects on the invention by including other materials, it is the examiner's position that the acrylic layers are still open to additional materials, including those of the references.

14. In response to the applicant's arguments of unexpected results, it is first noted that the results are not representative of the closest prior art. The specification gives no guidance as to how the adhesives of the comparative examples differ from the compositions of the claimed invention. The Fields reference teaches the use of hot-melt polyurethane adhesives for adhering an acrylic layer to a substrate. How do the adhesives of the comparative examples compare to the adhesives of the Fields reference? Secondly, the table shows two samples of example 1 adhesive on the same acrylic substrate; however, very different results are achieved (examples 2 and 3). Thus, it is not clear that the adhesive compositions themselves served to provide any improved results. It is not clear that the same methods were used to form each of the articles, including the same thicknesses, etc. Also, was the recommended application

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temperature used for the adhesives of the comparative examples? The examples of the specification do not provide sufficient evidence to suggest unexpected results.

### ***Conclusion***


15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie D. Bissett  
Patent Examiner  
Art Unit 1711

mdb